

### **III. REMARKS**

Claims 1-30 are pending in this application. By this amendment, claims 1, 3, 11-13 and 22-24 have been amended. Applicants do not acquiesce in the correctness of the rejections and reserve the right to present specific arguments regarding any rejected claims not specifically addressed. Furthermore, Applicants reserve the right to pursue the full scope of the subject matter of the original claims in a subsequent patent application that claims priority to the instant application. Reconsideration in view of the following remarks is respectfully requested.

Initially, Applicants thank the Examiner for the telephone interview of April 27, 2007 with their representative, Darrell L. Pogue, Reg. No. 57,878. During the interview, claims 3, 13 and 24 were discussed with respect to their 35 U.S.C. 112, second paragraph rejection. No exhibits were presented and no agreement was reached. The substance of the interview is incorporated in the following remarks.

In the Office Action, claims 3-6, 13-17 and 24-27 are rejected under 35 U.S.C. 112, second paragraph as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Specifically, the Office asserts that claims 3, 13 and 24 do not provide “continuity with the claim elements from which they depend. The phrase [‘]conducting the process on a first process reference wafer...’ seems to be stating that you do the steps of claim 1 again, though that does not appear to be the intent of the applicant.” Office Action, p. 2. In response, as stated during the interview, Applicants submit that claims 3, 13 and 24 are indeed definite. For example, originally filed claim 3 recites, *inter alia*, that the process is performed on a first and second process reference wafer to determine whether a deviation exists. Applicants submit that the process of claim 3 is substantially the same process recited by claim 1. However, in claim 3, the process is conducted on a process

reference wafer set. Accordingly, it is the intent of the applicant to perform substantially the same process, as recited by claim 3. Therefore, Applicants submit that claims 3, 13 and 24 are definite and respectfully request withdrawal of the rejection.

In the Office Action, claims 3-6, 13-17 and 24-27 are rejected under 35 U.S.C. 102(b) as allegedly being anticipated by Fairbairn et al. (U.S. Pat. Pub. No. 2002/0155629), hereinafter “Fairbairn.” Applicants respectfully request withdrawal of the rejection in light of the following remarks.

With respect to amended claim 1, Applicants submit that Fairbairn fails to disclose each and every element of the claimed invention, including “conducting the process on a second process reference wafer of the process reference wafer set at a later second point in time.” (*See* claim 1 and as similarly recited by claims 10 and 19). Interpreting Fairbairn only for the purposes of this response, Applicants submit that Fairbairn discloses that “a ‘library’ of reference waveforms, such as conventional SEM waveforms, is created by imaging a plurality of reference features formed, as on a test wafer in the photo cell, using the reticle which will be used in producing the features to be inspected. Each of the reference features is formed using different process parameters, such as different stepper focus and exposure settings.” Paragraph 0030. However, Fairbairn uses a static measurement calibration, performed once prior to usage. As disclosed by Fairbairn, “the reference library is created only once for each layer to be inspected, such as when a series of process steps, such as photo cell 360, creates a ‘critical layer’ that the user determines must be inspected.” Paragraph 0038. The reference library disclosed by Fairbairn is merely a collection of baseline references taken at a single point in time. This type of measurement is static, and does not, for example, compensate for integrated metrology tool drift.

In contrast to Fairbairn, the present invention recites, *inter alia*, conducting the process on a second process reference wafer of the process reference wafer set at a later second point in time. As shown in FIG. 5, determinator 150 via process reference wafer tester (PWR) 200 directs running another test PWR of the PWR set, wherein the test PWR has not been through the process before. The running occurs at a second, later point in time compared to a first point in time for a stored PRW incoming feature dimension baseline. Specification, p. 25-26. As a result, at step S102 (FIG. 5), a test PRW outgoing feature dimension for the identical feature on the baseline PRW is measured on the test PRW by APIM 22 under control of PRW tester 200. At step S103, the test PRW outgoing feature dimension is compared to the expected PRW outgoing feature dimension for the PRW set by comparator 144 to determine whether a deviation exists. Conducting the process on a first and second process wafer at two different points in time allows for an improved determination of an origin deviation. Fairbairn, however, fails to disclose conducting the process on a second reference wafer at a later, second point in time. Accordingly, Applicants submit that Fairbairn fails to disclose each and every element of claim 1 and respectfully request withdrawal of the rejection. Since similar amendments have been made to independent claims 11 and 22, withdrawal of the rejection of those claims is also requested.

With respect to dependent claims 2-10, 12-21 and 23-30, Applicants herein incorporate the arguments presented above with respect to independent claim 1 from which the claims depend. The dependent claims are believed to be allowable based on the above arguments, as well as for their own additional features.

#### **IV. CONCLUSION**

In light of the above, Applicants respectfully submit that all claims are in condition for allowance. Should the Examiner require anything further to place the application in better condition for allowance, the Examiner is invited to contact Applicants' undersigned representative at the number listed below.

Respectfully submitted,

/Darrell Pogue/

Darrell L. Pogue

Reg. No.: 57,878

Date: April 30, 2007

Hoffman, Warnick & D'Alessandro LLC  
75 State Street 14<sup>th</sup> Floor  
Albany, New York 12207  
(518) 449-0044  
(518) 449-0047 (fax)